(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 3 November 2005 (03.11.2005)

PCT

(10) International Publication Number WO 2005/102304 A1

- (51) International Patent Classification⁷: A61K 31/195, 31/137, 31/138, A61P 9/04
- (21) International Application Number:

PCT/AU2005/000590

- (22) International Filing Date: 26 April 2005 (26.04.2005)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 2004902179

23 April 2004 (23.04.2004) AU

- (71) Applicant (for all designated States except US): NORTH-ERN SYDNEY AND CENTRAL COAST AREA HEALTH SERVICE [AU/AU]; Executive Offices, Gosford Hospital, Holden Street, Gosford, NSW 2250 (AU).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): RASMUSSEN, Helge, H. [AU/AU]; 29 Mosman Street, Mosman, NSW 2088 (AU). BUNDGAARD, Henning [DK/DK]; Arnevangen 1, DK-2840 Holte (DK).

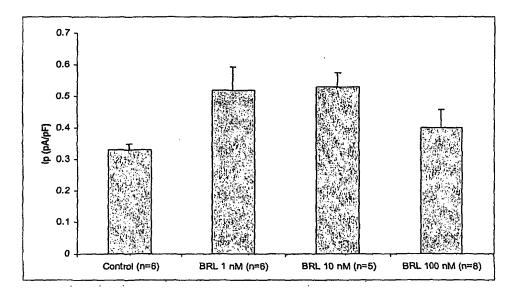
- (74) Agent: SPRUSON & FERGUSON; GPO Box 3898, Sydney, NSW 2001 (AU).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report

[Continued on next page]

(54) Title: METHODS AND COMPOSITIONS FOR THE TREATMENT OF MYOCARDIAL CONDITIONS



(57) Abstract: The present invention relates to methods for the treatment of conditions characterised by abnormalities of myocardial cell ion levels, such as Na⁺, K⁺ and Ca²⁺ ions. The present invention also relates to methods of treatment of heart failure and myocardial hypertrophy. The invention also relates to compounds and compositions, such as β₃ adrenoceptor agonists, useful in the treatment of mammals, particularly humans, having a condition characterised by abnormalities of myocardial cell ion levels, such as Na⁺, K⁺ and Ca²⁺ ions, including heart failure and myocardial hypertrophy.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.